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Addressing and Managing Plastic Pollution



Wednesday, April 21, 2021, 2:00pm – 4:00pm Eastern

Speakers:

- **Winnie Lau**, Senior Manager, Preventing Ocean Plastics, The Pew Charitable Trusts
- **Judith Enck**, President, Beyond Plastics
- **Nancy Wallace**, Director, Marine Debris Program, National Oceanic and Atmospheric Administration (NOAA)
- **Romell Nandi**, Trash Free Waters National Program Lead, U.S. Environmental Protection Agency (EPA)

Watershed Academy Webcast

- The slides for today's presentations are posted on the Watershed Academy webpage.
- A recording of the webcast will be posted within the next month.

www.epa.gov/watershedacademy

Webcast Logistics

- **To Ask a Question** – Type your question into the “Questions” tool box on the right side of your screen and click “Send.”
- **To Report any Technical Issues** (such as audio problems) – Type your issue in the “Questions” tool box on the right side of your screen and click “Send” and we will respond by posting an answer in the “Questions” box.
- **During the demonstration** – Please follow along with the live demonstration and refrain from accessing the tool until after the webcast.

Audience Polling

Speakers

- **Winnie Lau**, Senior Manager, Preventing Ocean Plastics, The Pew Charitable Trusts
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BREAKING THE PLASTIC WAVE

Winnie Lau, Senior Manager
Preventing Ocean Plastics

*EPA Watershed Academy
Addressing and Managing Plastic Pollution
April 21, 2021*



PLASTIC POLLUTION: TOLL ON PEOPLE AND NATURE



PROJECTED GROWTH IN PLASTIC INDUSTRY



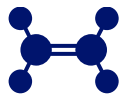
40%

plastic production growth over the next decade



\$400B

investment into new refineries by 2023 in US, China and Middle East



8.7%

expected CAGR for ethylene market between 2019 and 2026



UNRECONCILED APPROACHES

1
BAN

2
BURN OR BURY

3
CLEAN UP

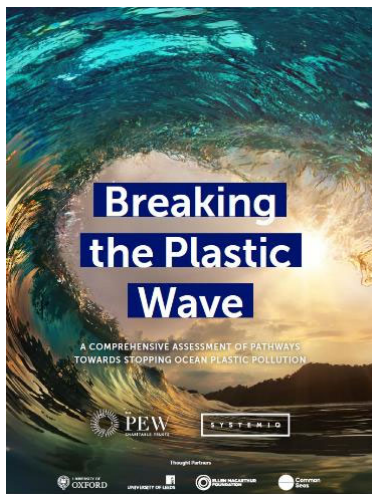
4
RECYCLE

5
BIO-
SOLUTIONS

- ENVIRONMENTAL, ECONOMIC, AND SOCIAL IMPACTS
- PLASTIC MATERIAL TYPE
- GEOGRAPHIC DIFFERENCES
- COSTS AND INVESTMENT REQUIREMENTS

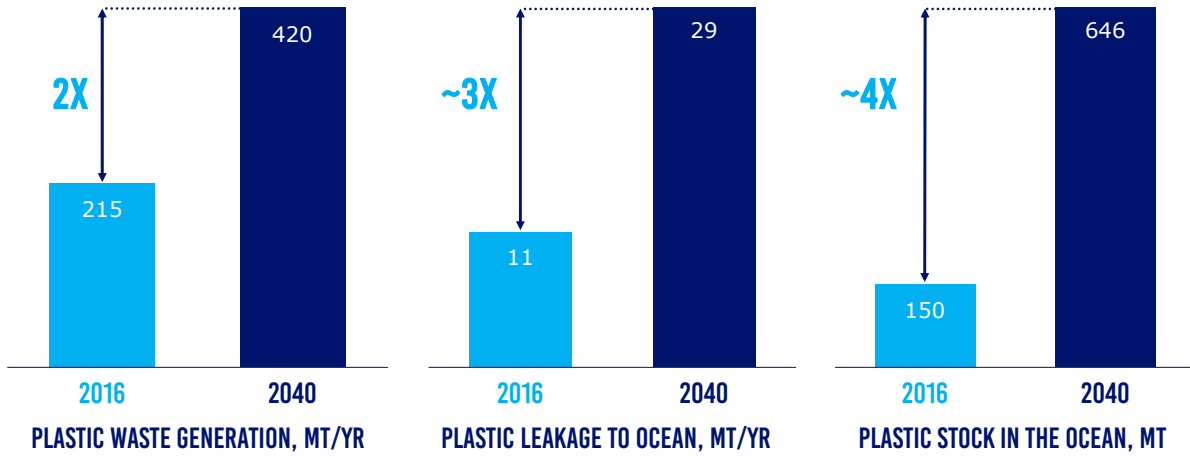


BREAKING THE PLASTIC WAVE



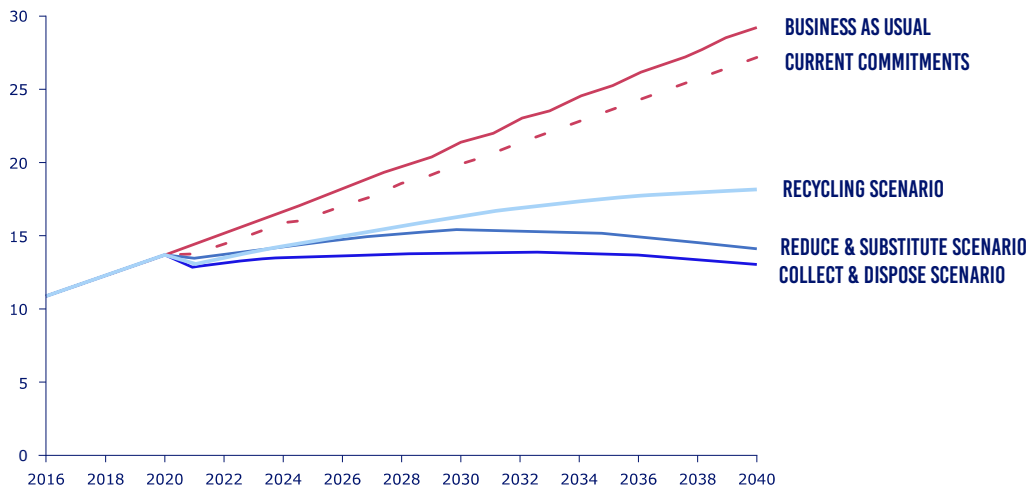
BUSINESS-AS-USUAL IS UNMANAGEABLE

MUNICIPAL SOLID WASTE PLASTIC



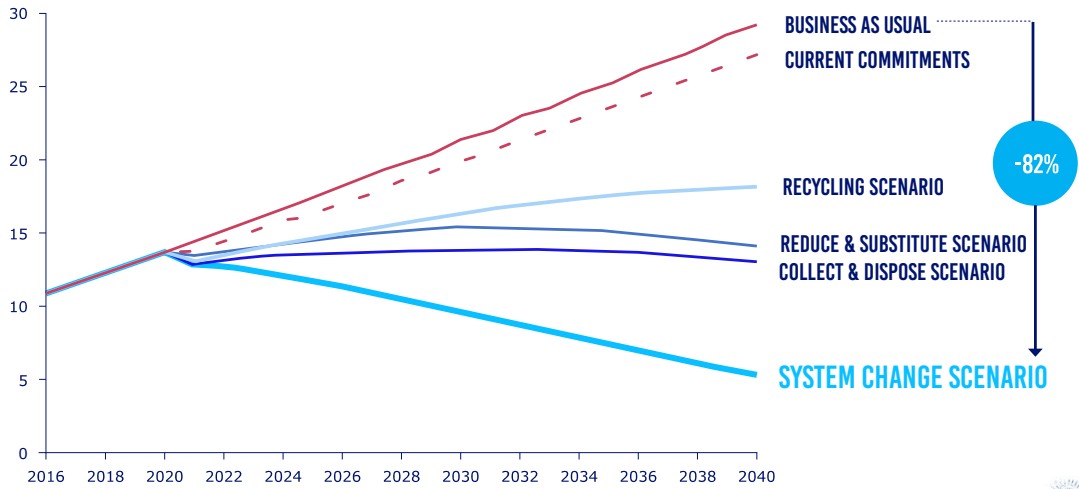
NO "SILVER BULLETS"

LEAKAGE TO THE OCEAN UNDER DIFFERENT SCENARIOS, MT PER YEAR



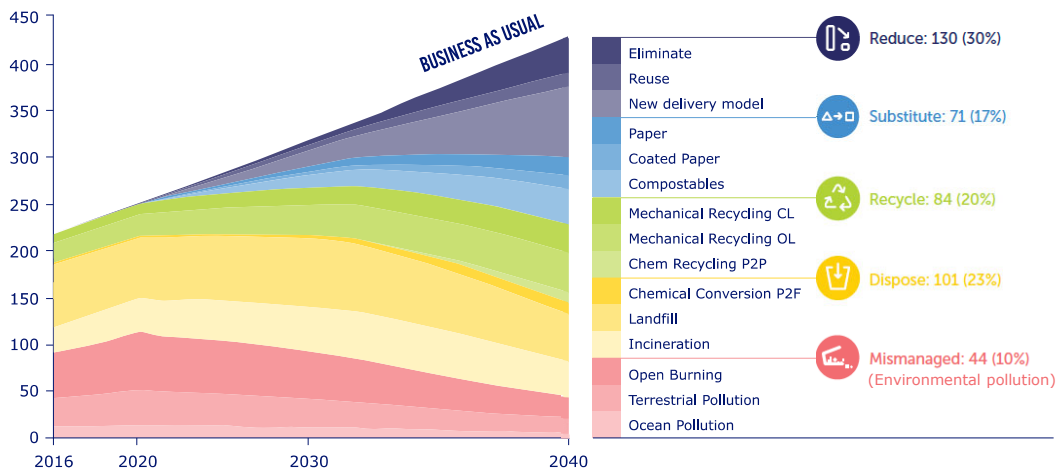
NO "SILVER BULLETS" BUT THERE IS HOPE

LEAKAGE TO THE OCEAN UNDER DIFFERENT SCENARIOS, MT PER YEAR

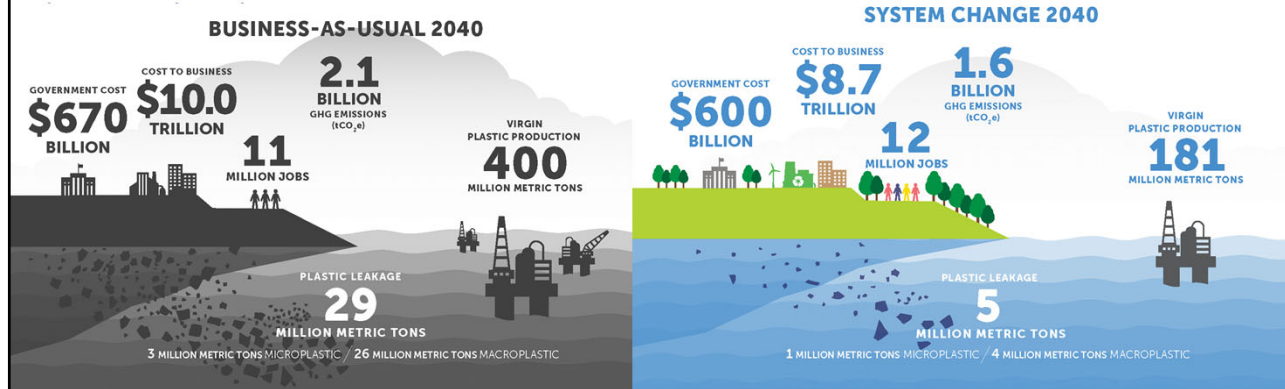


SYSTEM CHANGE: A CREDIBLE PATHWAY

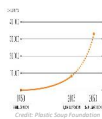
CUMULATIVE PLASTIC MASS, MT PER YEAR



THE SYSTEM CHANGE SCENARIO IS THE MOST SUSTAINABLE



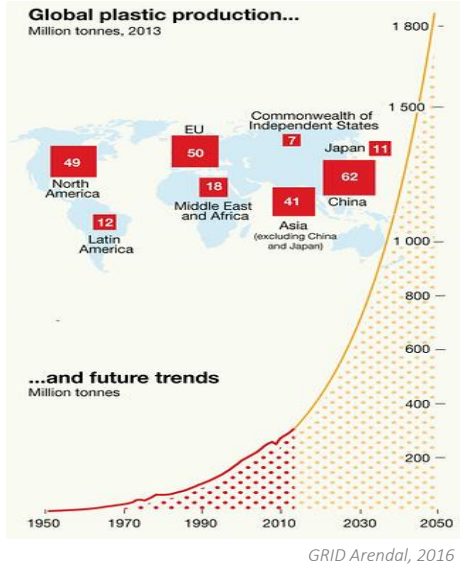
FOUR KEY DRIVERS AND CAUSES OF PLASTIC POLLUTION



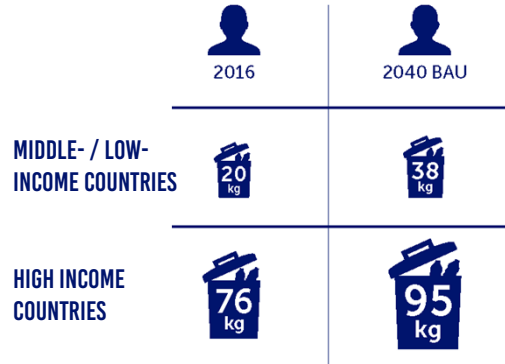
- Rapid growth in plastic production and waste generation
- Growing collection gap in developing countries
- Problematic, high leakage, plastics
- Economics



HIGH GROWTH IN PLASTIC PRODUCTION AND WASTE GENERATION



PER CAPITA WASTE GENERATION



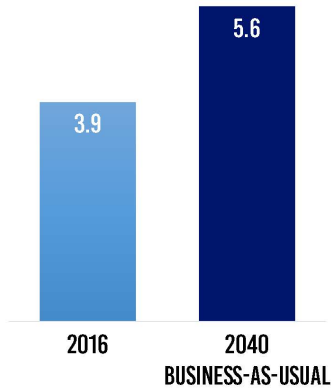
WASTE COLLECTION GAP IN MIDDLE/LOW-INCOME COUNTRIES

2 BILLION PEOPLE IN 2016 → 4 BILLION PEOPLE IN 2040

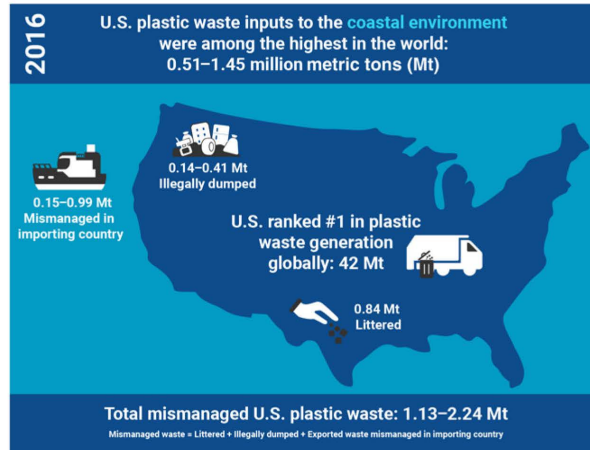


PLASTIC WASTE EXPORT-IMPORT LEADS TO PLASTIC POLLUTION

GLOBAL WASTE EXPORT, MT PER YEAR



0.15-0.99 MT MISMANAGED WASTE EXPORTED BY UNITED STATES

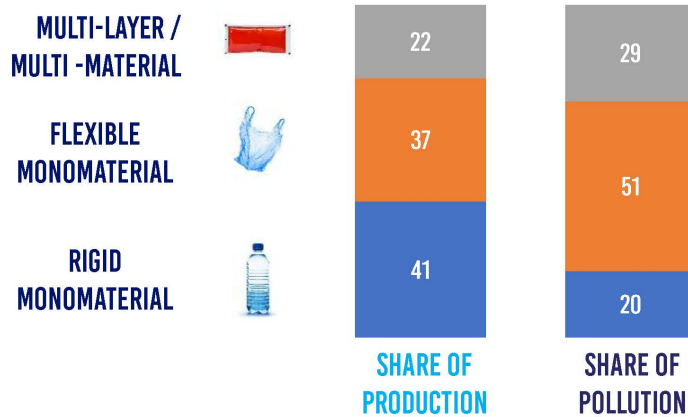


Law, et al. 2020



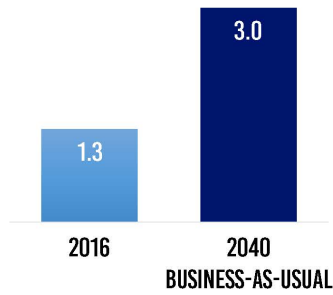
HIGH LEAKAGE OF FLEXIBLE AND MULTIMATERIAL PLASTIC

2016
(LEAKAGE: 29 MT/Y)

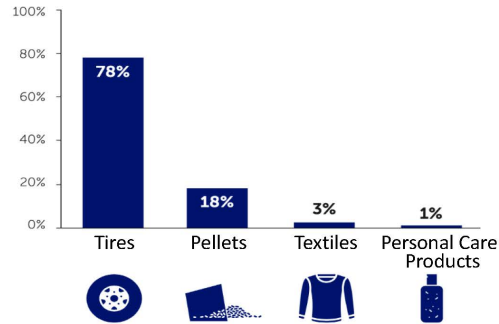


MICROPLASTICS LEAKAGE ALSO GROWS

MICROPLASTIC EMISSIONS, MT PER YEAR

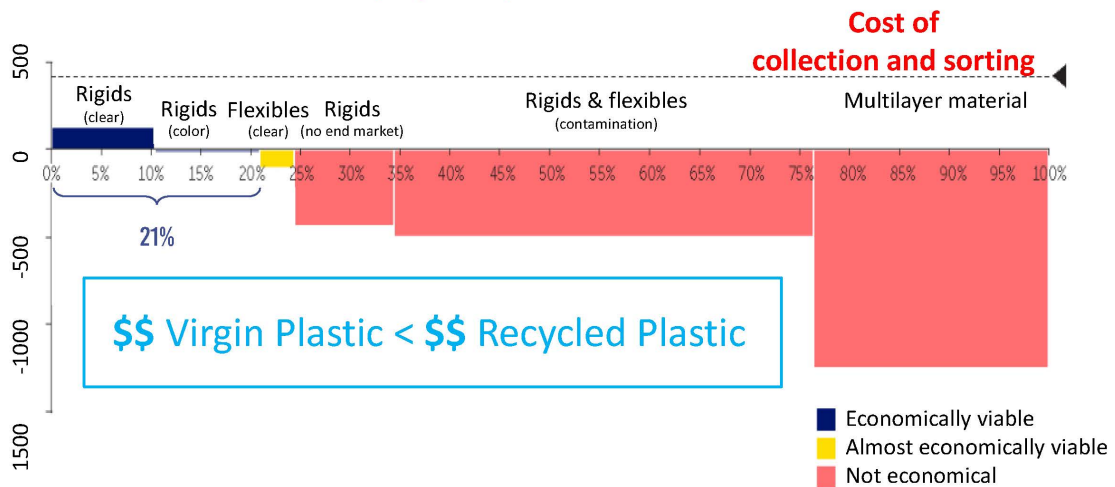


MICROPLASTIC EMISSIONS BY SOURCE, 2016



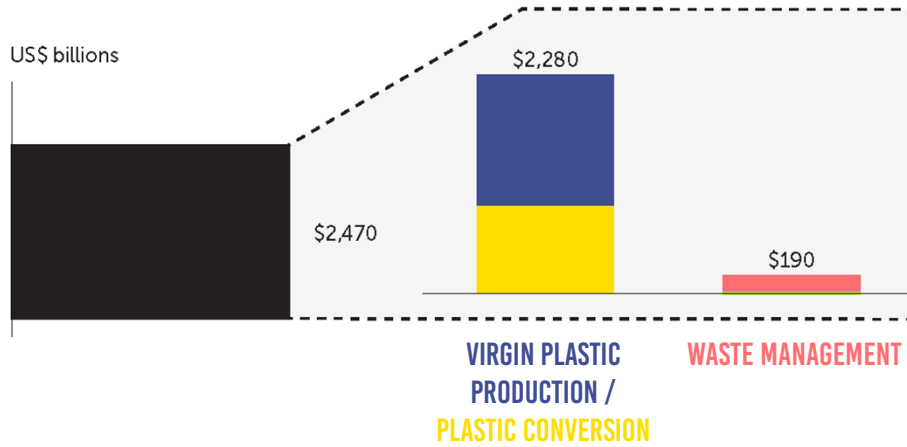
ECONOMICS: COSTS OF RECYCLING AND RECYCLED PLASTIC

2016 MECHANICAL RECYCLING NET PROFIT, US\$ PER MT, HIGH-INCOME COUNTRIES



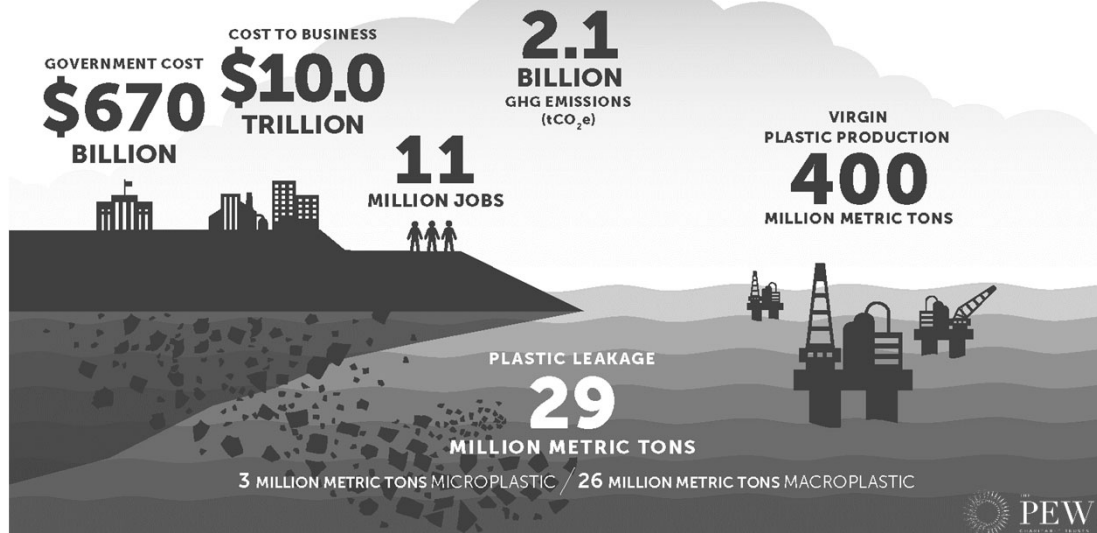
ECONOMICS: CAPITAL INVESTMENTS SKEWS TOWARD PRODUCTION

PRESENT VALUE OF GLOBAL CAPITAL INVESTMENT PROJECTION, BUSINESS-AS-USUAL (2021 – 2040)



ECONOMICS: EXTERNALITIES OF PLASTIC POLLUTION UNACCOUNTED FOR

BUSINESS-AS-USUAL 2040



SOLUTIONS AND PATHWAY

HORIZON 1: 2020-2022

“NO REGRETS”



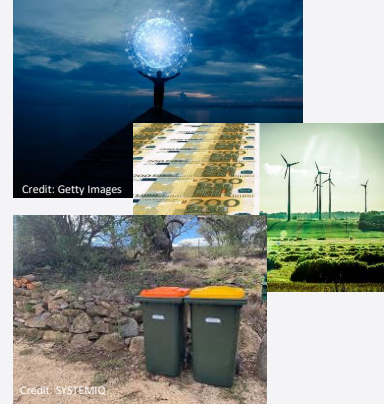
HORIZON 2: 2025

“CATALYTIC INTERVENTIONS”



HORIZON 3: 2030

“BREAKTHROUGH”




THE PEW CHARITABLE TRUSTS

<https://www.pewtrusts.org/en/projects/preventing-ocean-plastics>

Judith Enck
Beyond Plastics
www.BeyondPlastics.org



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The New York Times

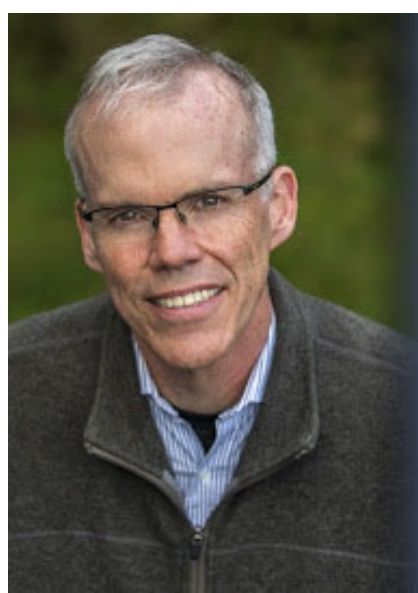
LA1
West
and to
Temp
67-68

3,997 © 1970 The New York Times Company. NEW YORK, THURSDAY, APRIL 23, 1970

Millions Join Earth Day Observances Across the Nation



Throng jamming Fifth Avenue yesterday in response to a call for the regeneration of a polluted environment. View is north from 43d Street, with Central Park in background.



BILL McKIBBEN

Author • Educator • Environmentalist





By 2025, for every 3 pounds of fish there will be 1 pound of plastics.



Sea birds mistake red or orange plastic bottle caps for shrimp.

Plastics Are Made From Chemicals and Fossil Fuels

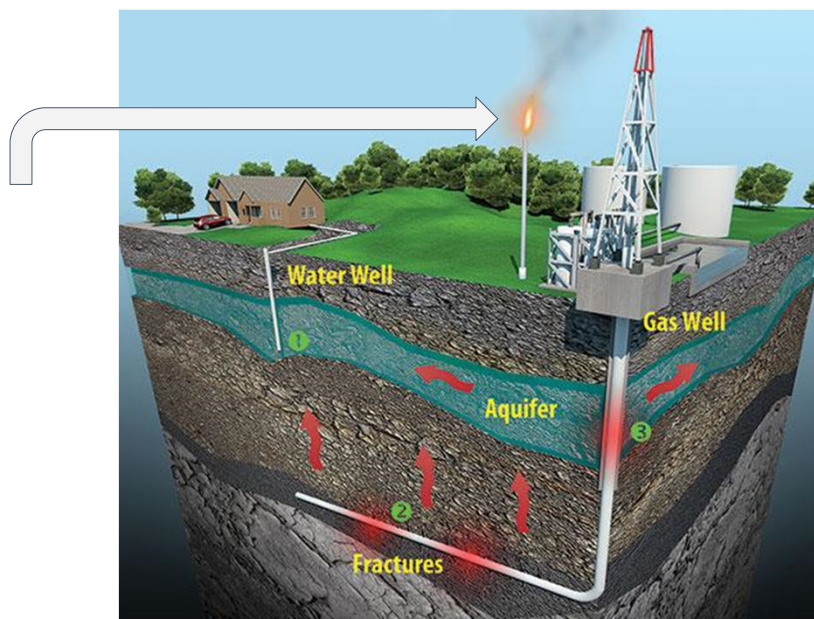


Fossil fuels are: coal, oil and gas.



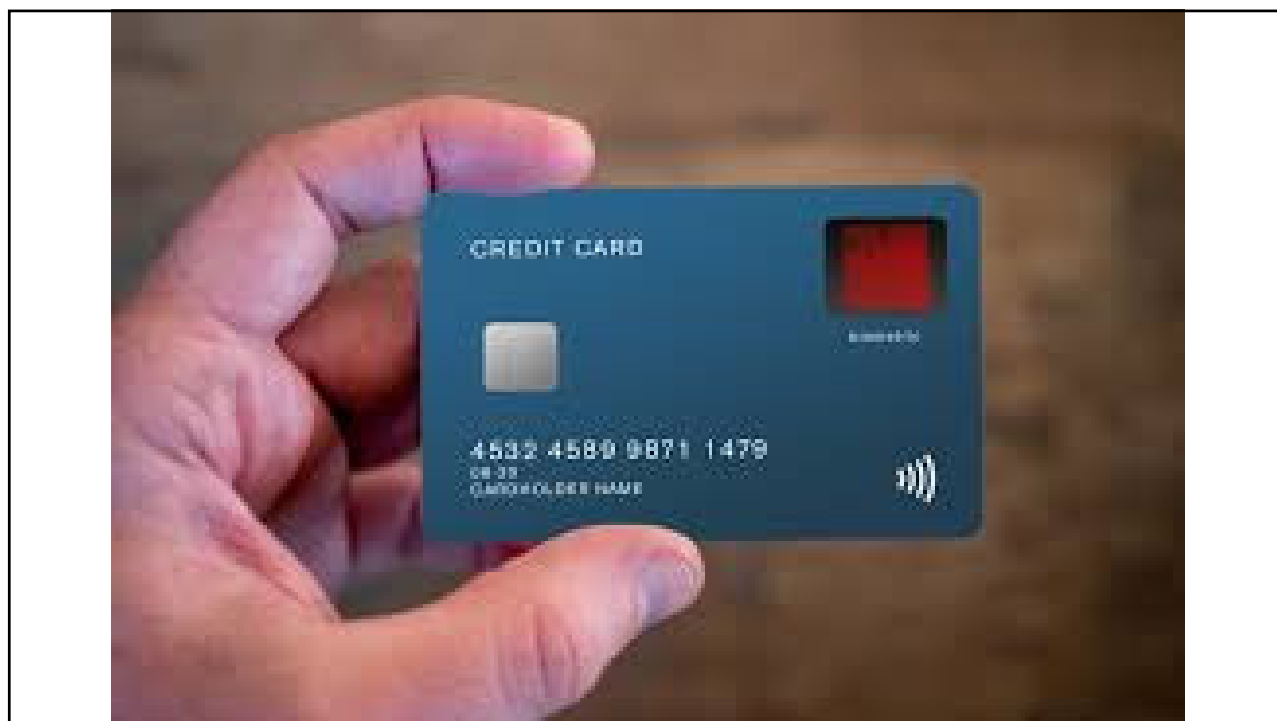
Today, mostly made from a by-product of gas: ethane

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Plasticenta: First evidence of microplastics in human placenta

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 Valentina Notarstefano^d, Oliana Carnevali^e, Fabrizio Papa^f, Mauro Giro Antonio Rongioletti^g,
 Federico Iacono^h, Simonetta Draghiⁱ, Elisabetta D'Amore^j, Denise Rinaldo^k, Maria Marta^l,
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 Raman microspectroscopy

ABSTRACT

Microplastics are particles smaller than five millimeters deriving from the degradation of plastic objects present in the environment. Microplastics can move from the environment to living organisms, including mammals. In this study, six human placentas, collected from consenting women with physiological pregnancies, were analyzed by Raman Microspectroscopy to evaluate the presence of microplastics. In total, 12 microplastic fragments (ranging from 5 to 12 μm in size), with spheric or irregular shape were found in 4 placentas (3 in the fetal side, 4 in the maternal side and 3 in the chorionic membrane); all microplastic particles were characterized in terms of morphology and chemical composition. All of them were pigmented; three were identified as stained polypropylene a thermoplastic polymer, while for the other nine it was possible to identify only the pigments, which were all used for non-medic coatings, paints, adhesives, plasters, finger paints, polymers and cosmetics and personal care products.

1. Introduction

In the last century, the global production of plastics has reached 320 million tons (Mt) per year, and over 40% is used as single-use packaging, hence producing plastic waste. In Europe, plastic production reached the 58 million of tons in 2014 (Eurostat/Eurostat, 2016). The degradation that plastics undergo when released into the environment is a serious issue. Atmospheric agents, such as waves, abrasion, ultraviolet radiation and photo-oxidation in combination with bacteria degrade plastic fragments into micro and nanosized particles. Most of the seabed all over the world and in the Mediterranean Sea in particular, is made of plastic, resulting from the waste collected on the coasts and in the sea (de Sisto, Marchetti et al., 2018). Microplastics (MPs) are defined as particles less than 5 mm in size (Hartmann et al., 2019). MPs do not derive only from larger pieces fragmentation but are also produced in their dimension for commercial uses. Furthermore, there are several reports of MPs in food (Barboza et al., 2018), and in particular in seafood, sea salt (Karami et al., 2017b; Smith et al., 2018), and in drinking water (Schymanski et al., 2018). Microplastics have also been detected in the gastrointestinal tract of marine animals (Lorenz et al., 2017; Reineke et al., 2013), and also human intestine (Ceballos et al., 2019). Inside tissues, MPs are considered as foreign bodies by the host organism and, as such, trigger local immunoreactions. Furthermore, MPs can act as carriers for other chemicals, such as environmental pollutants and plastic additives, which may be released and are known for their harmful effects (ESA Panel on Contaminants in the Food Chain CONTAM, 2016; Wright and Kelly, 2017).

In this study, for the first time, several microplastic fragments were detected by Raman Microspectroscopy in human placentas samples collected from six consenting patients with uneventful pregnancies. Raman Microspectroscopy is a well-assessed vibrational technique, widely and successfully applied in the biomedical field, to characterize both biological samples (Nicolini et al., 2020, 2019), and to detect the occurrence of microplastics and microparticles in general (Espigler et al., 2016; Ribeiro-Carre et al., 2017). Placenta finely regulates fetal to maternal environment and, indirectly, to the external one, acting as a

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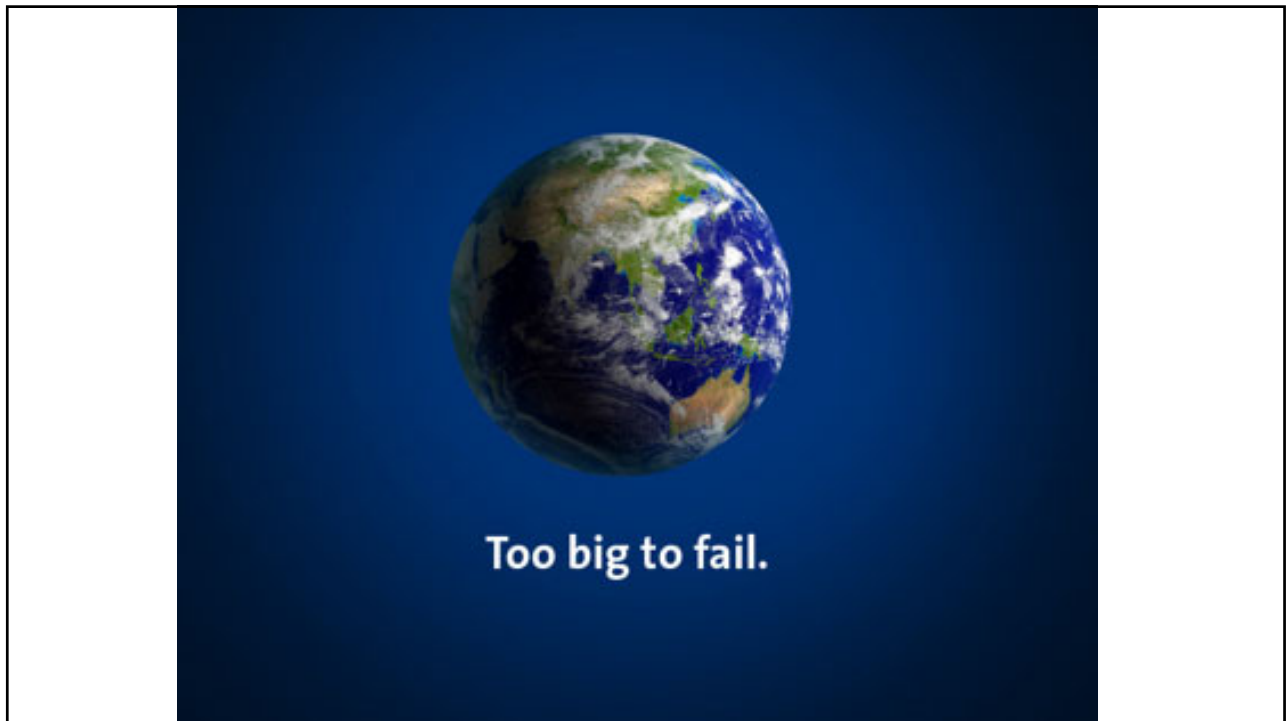
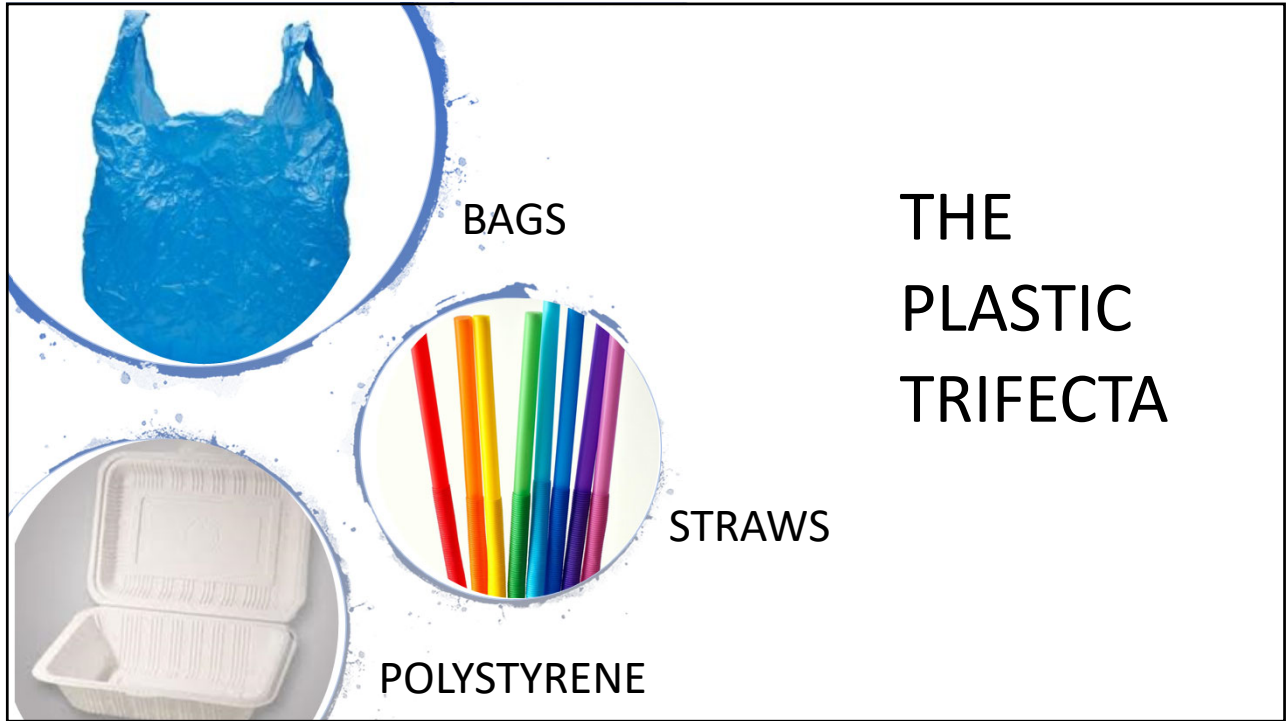
There are twice as many microplastics in bottled water than in tap water.





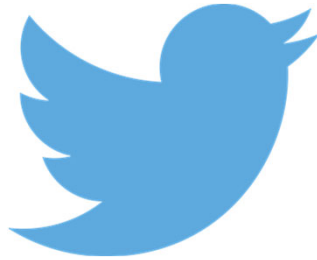
Online Class
Moving Beyond Plastic Pollution
Registration info
bennington.edu/capa-online
or email capa@bennington.edu











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www.BeyondPlastics.org

**NOAA MARINE
DEBRIS PROGRAM**

Nancy Wallace, Director
National Oceanic and Atmospheric Administration
Marine Debris Program

EPA Office of Water Watershed Academy
April 2021

Photo: NOAA

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Photo: NOAA

NOAA MARINE DEBRIS PROGRAM

Established in 2006 by Congress as the federal lead for marine debris. Reauthorized in 2018 through the Save Our Seas Act. The Save Our Seas 2.0 Act was signed into law in December 2020.

Vision: the global ocean and its coasts free from the impacts of marine debris
Mission: to investigate and prevent the adverse impacts of marine debris

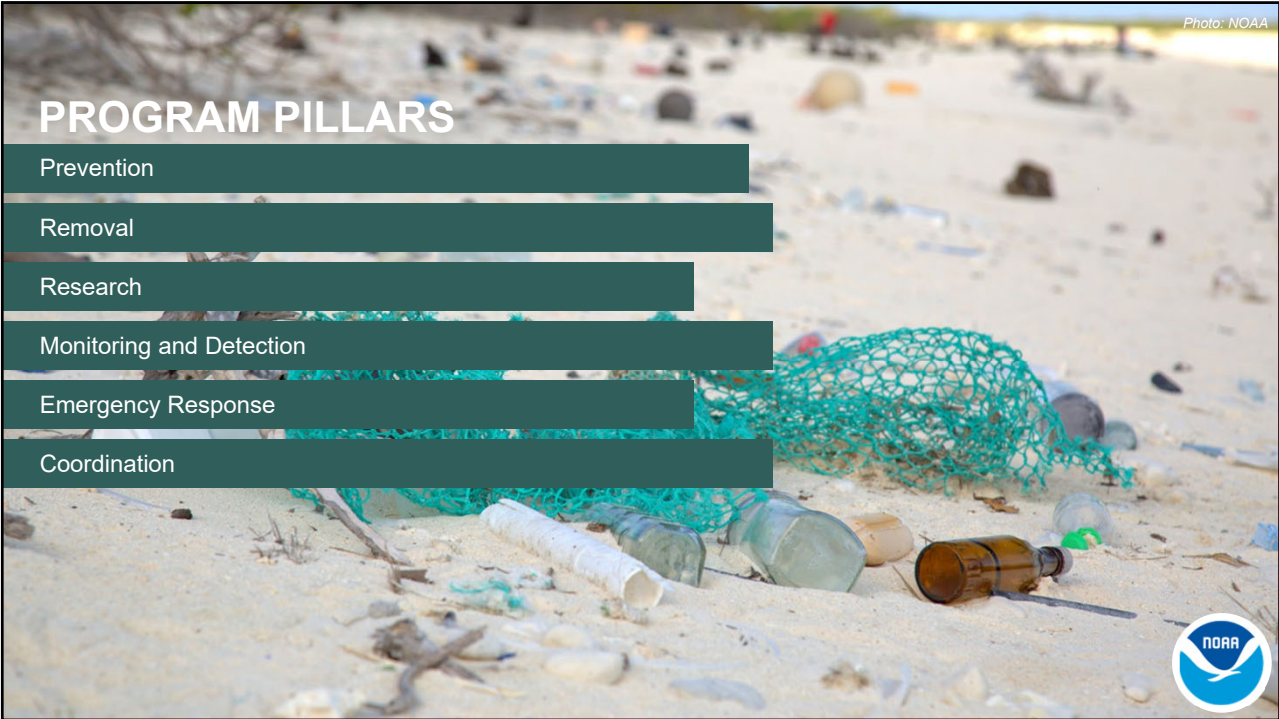


Photo: NOAA

PROGRAM PILLARS

- Prevention
- Removal
- Research
- Monitoring and Detection
- Emergency Response
- Coordination



Photo: Clean Water Fund

PREVENTION

Turning off the tap

Provide funding to create lasting and measurable behavior change

Work with students, teachers, fishers, restaurants, and other businesses



Photo: Shedd Aquarium

PREVENTION

Let's Shedd Plastic in Chicago-area Restaurants

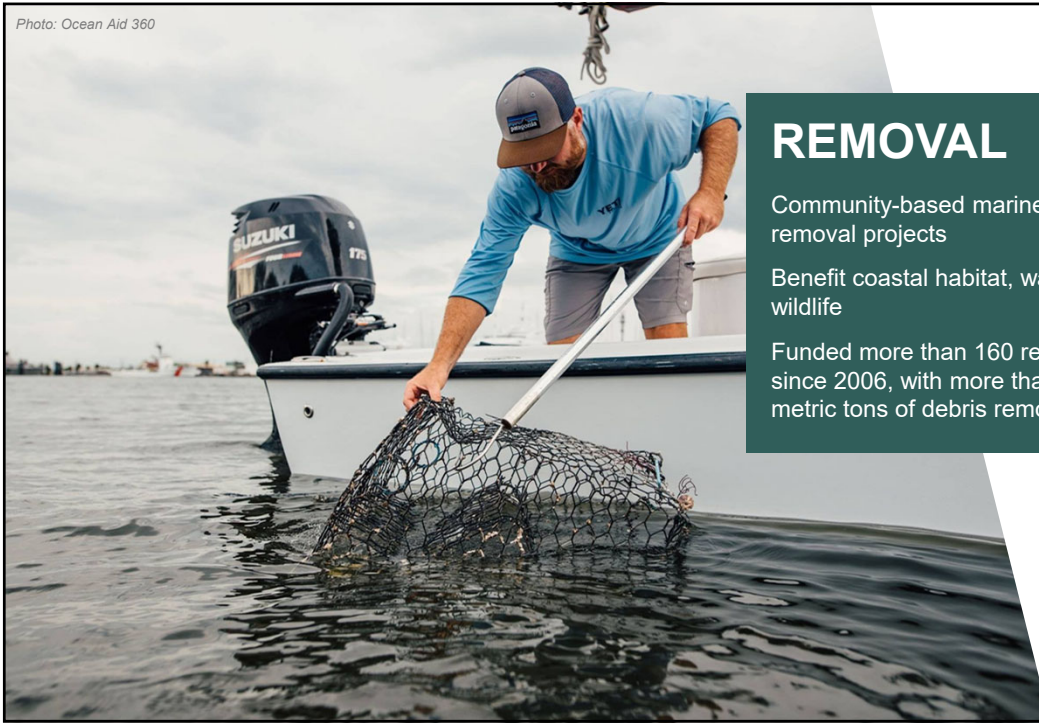
Shedd Aquarium is working with restaurants to reduce single-use plastics

Let's Shedd Plastic campaign provides training and education to change practices

The Restaurant Toolkit will offer tools and resources to help restaurants adopt more sustainable practices



Photo: Ocean Aid 360



REMOVAL

Community-based marine debris removal projects

Benefit coastal habitat, waterways, and wildlife

Funded more than 160 removal projects since 2006, with more than 22,500 metric tons of debris removed



Photo: Global Ghost Gear Initiative



REMOVAL

Partnering with Fishers to Remove Derelict Fishing Gear in the Gulf of Maine

Ocean Conservancy's Global ghost Gear Initiative is removing derelict fishing gear hotspots in the Gulf of Maine

The Gulf of Maine Lobster Foundation and partners will lead annual cleanups

Goal to remove 30,000 pounds of derelict fishing gear

Workshops aim to implement best practices to manage gear



Photo: University of California, Riverside

RESEARCH

Advance state of marine debris science

Partner with academia, state and federal agencies, and non-governmental organizations

Current research priorities include impacts to commercial seafood species, ecological risk assessment, fate and transport and economic impacts

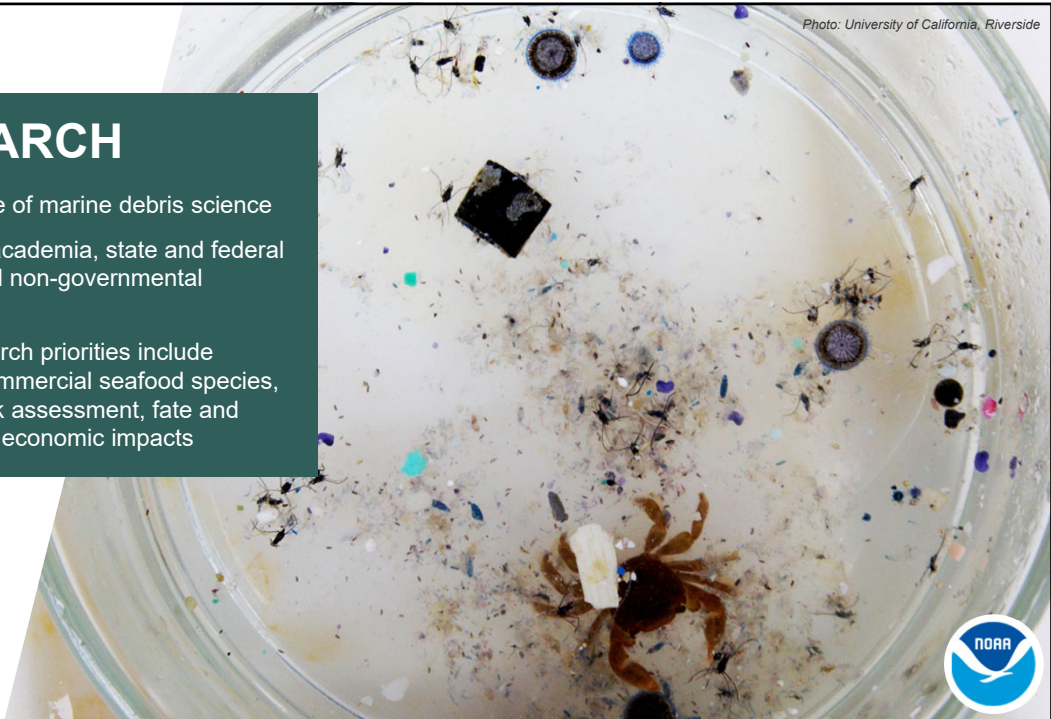


Photo: NOAA

RESEARCH

Evaluation of the Contributions of the United States to Global Ocean Plastic Waste

A national-level study led by the National Academies of Science, Engineering, and Medicine and a committee of scientists and experts

Addresses how prevalent marine debris is in U.S. waterways

A final report will recommend ways to reduce contributions to global waste



Photo: NOAA



MONITORING AND DETECTION

Marine Debris Monitoring and Assessment Project

Volunteer citizen science initiative with NOAA standardized monitoring protocols

Use emerging technology to detect marine debris



EMERGENCY RESPONSE

Debris can threaten navigation, natural resources, and human safety

Respond to extreme weather events

Emergency response guides for Alabama, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Mississippi, Virginia, Texas, and the U.S. Virgin Islands

Photo: Petty Officer Christopher M Yaw, US Coast Guard



Photo: Heidi Walker



REGIONAL COORDINATION

Marine Debris Action Plans

Facilitate the creation of plans across the US

Identify regional marine debris issues and create actions to address them

Active/Completed plans in California, Florida, Great Lakes, Gulf of Maine, Gulf of Mexico, Hawaii, Oregon, Southeast, Virginia, and Washington



THE UNITED STATES-MEXICO-CANADA AGREEMENT

New funding opportunities to prevent and remove marine debris in border areas

Collaboration with partners in Mexico and Canada

First project selections announcements coming this summer



Photo: Tijuana River National Estuarine Research Reserve



Photo: NOAA Coral Reef Ecosystem Program



SOS 2.0 IMPLEMENTATION

The Save Our Seas 2.0 Act was signed into law in December 2020

Establish a new Marine Debris Foundation

Genius Prize for Save Our Seas Innovation

New reports and studies on different aspects of marine debris



Photo: Susan White, US Fish and Wildlife Service

INTERAGENCY MARINE DEBRIS COORDINATING COMMITTEE

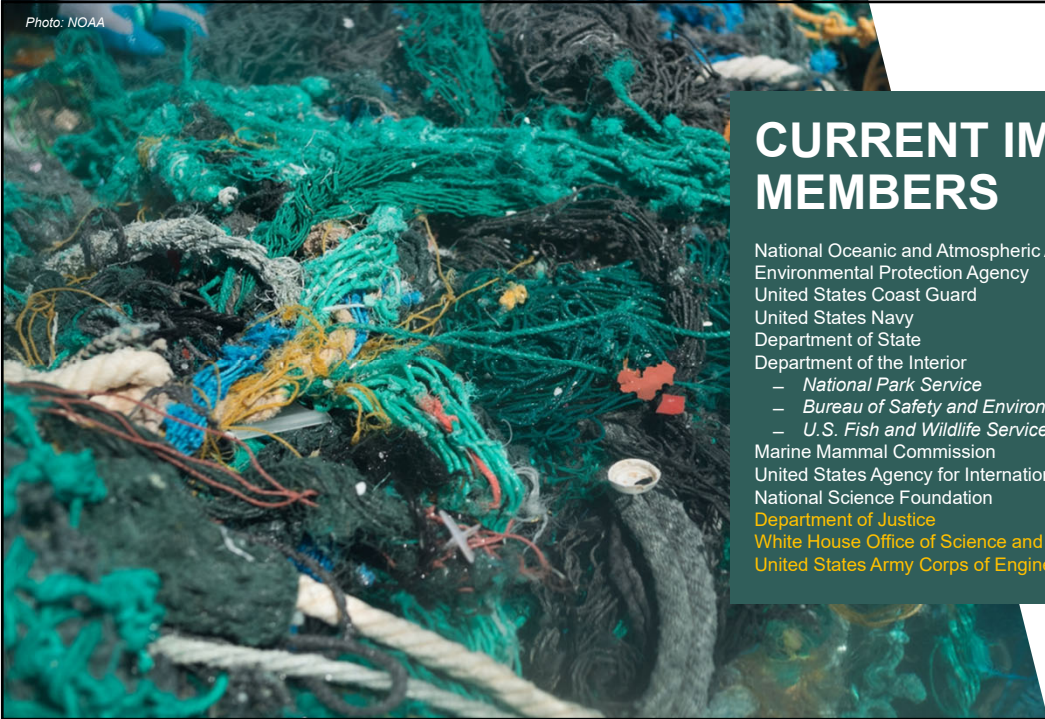
Established by the Marine Debris Act

Responsible for streamlining federal government efforts to address marine debris

Coordination among Federal agencies on research priorities, monitoring, education, and regulatory action



Photo: NOAA



CURRENT IMDCC MEMBERS

- National Oceanic and Atmospheric Administration (Chair)
- Environmental Protection Agency
- United States Coast Guard
- United States Navy
- Department of State
- Department of the Interior
 - National Park Service
 - Bureau of Safety and Environmental Enforcement
 - U.S. Fish and Wildlife Service
- Marine Mammal Commission
- United States Agency for International Development
- National Science Foundation
- Department of Justice
 - White House Office of Science and Technology Policy
 - United States Army Corps of Engineers

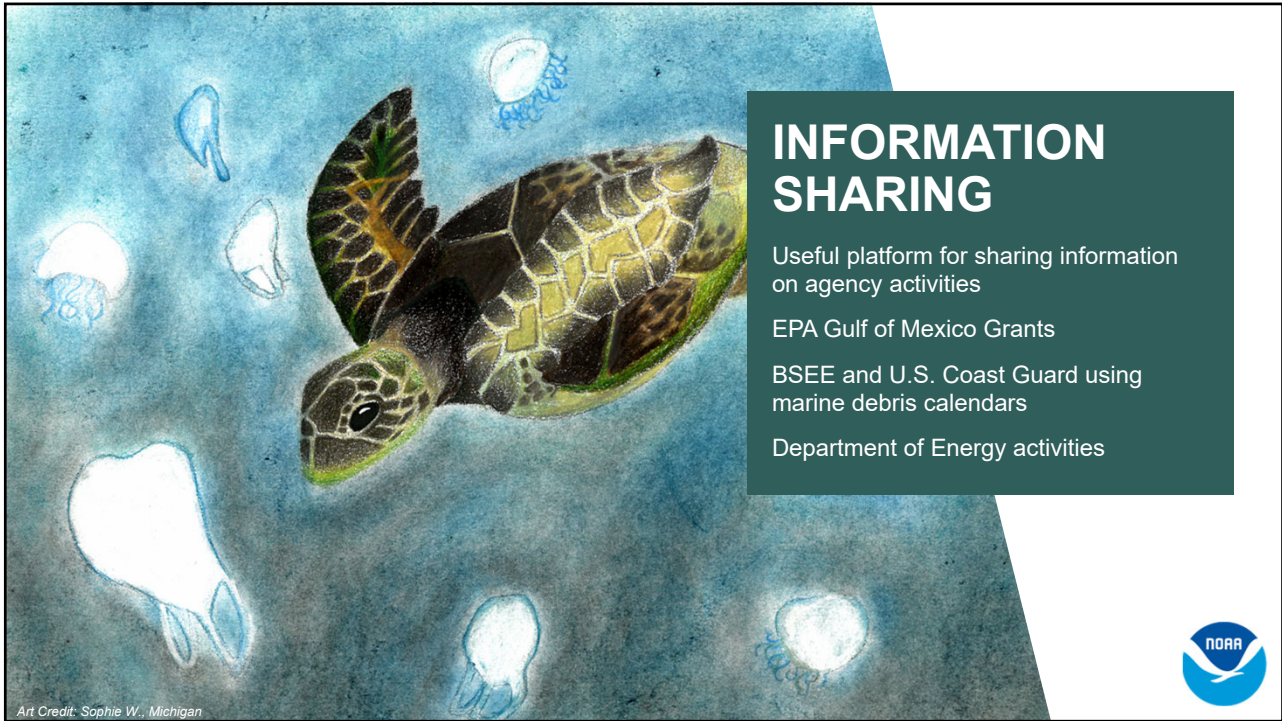


PURPOSE OF THE IMDCC

- Coordinate marine debris activities among federal agencies
- Quarterly meetings
- Opportunities for information sharing

Photo: Dev Dharm Khalsa/NPS





Art Credit: Sophie W., Michigan

INFORMATION SHARING

Useful platform for sharing information on agency activities

EPA Gulf of Mexico Grants

BSEE and U.S. Coast Guard using marine debris calendars

Department of Energy activities



Photo: Nate Toering/NPS

COLLABORATIVE AGENCY PROJECTS

NOAA-National Park Service developing marine debris displays

Microplastics study on National Park beaches

Joint proposal to APEC between NOAA, Department of State, and USAID





THANK YOU

Nancy Wallace, Director
National Oceanic and Atmospheric Administration
Marine Debris Program

EPA Office of Water Watershed Academy
April 2021

Photo: NOAA



EPA'S TRASH FREE WATERS PROGRAM

EXISTING LEGAL AUTHORITIES AND EPA PROGRAMS TO ADDRESS AQUATIC TRASH

Existing **legal authorities** to address aquatic trash include:

- **Clean Water Act**
- **Pollution Prevention Act**
- **Resource Conservation and Recovery Act**
- **Marine Debris Act, amended by Save Our Seas Act of 2018**
- **Save Our Seas Act 2.0**

EPA offices that are working on various aspects of the aquatic trash problem include:

- **Office of Water**
- **Office of International and Tribal Affairs**
- **Office of Land and Emergency Management**
- **Office of Research and Development**
- **Regional Offices**

TRASH FREE WATERS PROGRAM: WHAT IS IT AND HOW DOES IT WORK?

- The Trash Free Waters (TFW) program is a voluntary, non-statutory program that work through partnerships in locations around the country to prevent or reduce trash loadings into the nation's waterways.
- Our place-based efforts are typically led by our Regional offices.
- In other cases, Headquarters has led place-based projects.
- Headquarters provides funding and technical assistance for select place-based projects.
- Headquarters also leads national scale projects.

TFW PROGRAM PRIORITIES

- The program has the following priorities:
 1. Support effective regional, state, and local projects.
 2. Leverage public and private partnerships.
 3. Support research and education/outreach efforts.
 4. Provide tools and resources that support high-impact voluntary trash prevention actions.



National TFW Planning Meeting, 2016

TFW PROGRAM RESPONSIBILITIES

- All ten EPA Regions plus three geographic programs have a TFW Coordinator or TFW team who are responsible for:
 1. Developing an annual TFW workplan
 2. Developing and implementing TFW projects in partnership with stakeholders
 3. Reporting against program metrics to HQ each year
- The TFW team in HQ is responsible for:
 1. Defining and guiding TFW program strategy
 2. Coordinating with TFW Regional Coordinators and interagency and intra-agency partners
 3. Providing technical and financial assistance
 4. Maintaining website
 5. Leading national TFW projects
 6. Developing tools and resources

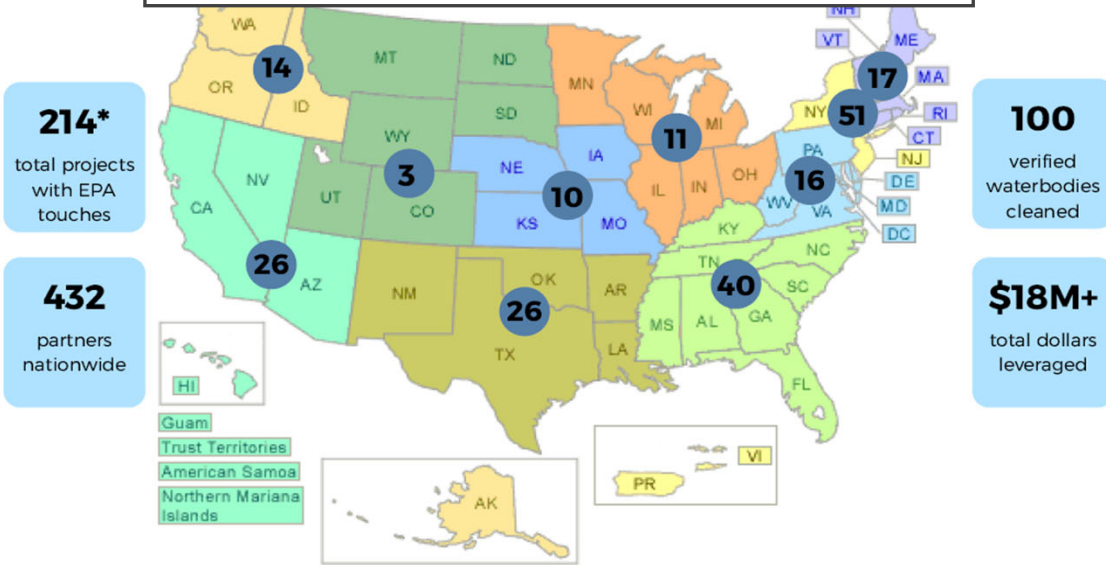
INTERAGENCY COORDINATION

- The TFW national program lead sits on the Interagency Marine Debris Coordinating Committee (IMDCC), which acts as an information-sharing body for US government activities with respect to marine litter.
- TFW also sits on the federal interagency micro/nanoplastics workgroup, which shares information on federal agency research specific to that topic.
- TFW has worked selectively with other Agencies on particular projects or efforts.



PLACE-BASED EFFORTS

TFW PLACE-BASED PROJECTS AT A GLANCE



*Of the 214 projects, 13% are trash capture, 18% are source reduction, 20% are research, 34% are outreach and education, and 15% are other.

PLACE-BASED PROJECT EXAMPLES



- **Trash Free Gulf** - R4, R6, and Gulf of Mexico Division are working collaboratively to develop a geographically-focused TFW initiative to establish a trash-related event database, create an outreach toolkit resource database, and gather and display data on trash removed during cleanup events in the Gulf region.
- **Trash Free St. Louis** - R7 is partnering with the Missouri Confluence Waterkeeper to install 3 different in-stream trash devices on hotspot urban streams outside of St. Louis, MO.
- **Trash Free Mystic** - R1 is working closely with the Mystic River Watershed Association, the Consensus Building Institute, and local stakeholders to develop 2-3 priority trash mitigation projects to inform eventual implementation.
- **Trash Free Texas** - Continued expansion of the "Adopt a Spot" online mapping tool which enables community leaders to identify, promote, and track trash removal activities in their region.

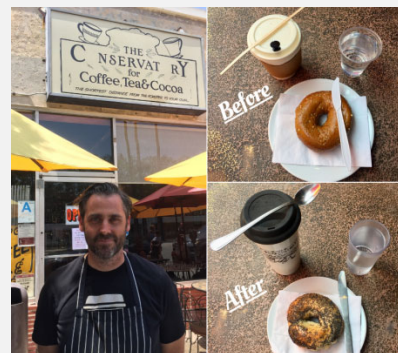
PROJECT SPOTLIGHT I: PROCTOR CREEK TRASH CAPTURE

- EPA Region 4, The Coca-Cola Company, the National Recreation and Park Association (NRPA), the City of Atlanta, West Atlanta Watershed Alliance, Groundwork Atlanta, and Park Pride partnered to install several innovative trash-trap systems along Proctor Creek.
- In 2019, EPA facilitated a Proctor Creek Stakeholder Investment Meeting with leaders from local government, foundations, non-profits, and businesses to identify resource needs and secure funding for source reduction efforts and trash traps.
- As a result of this meeting, the Coca-Cola Company invested \$350,000 in the project through their World Without Waste Initiative.
- As of March 31, 2020, EPA-supported trash capture devices within the Proctor Creek watershed have collected more than 900 pounds of trash.



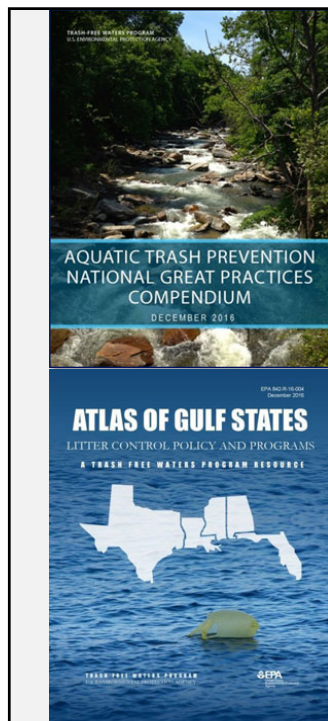
PROJECT SPOTLIGHT II: SANTA MONICA BAY NATIONAL ESTUARY PROGRAM'S RETHINK DISPOSABLE PROJECT

- With financial support from EPA's Trash Free Waters Program, the Santa Monica Bay National Estuary Program (SMBNEP) implemented a one-year pilot project in partnership with Clean Water Action and Clean Water Fund to reduce single use disposable packaging at four Los Angeles restaurants.
- After the project's first year, these four restaurants eliminated 247,570 pieces of single-use disposables resulting in an annual waste reduction of 2,637 pounds.
- The project has since been expanded to other area restaurants.





HQ-LED EFFORTS



SELECT HEADQUARTERS TFW PROGRAM ACCOMPLISHMENTS

1. Brought together world-renowned microplastics experts for a Microplastics Expert Workshop leading to a report on remaining key research needs.
2. Developed a Great Practices Compendium, an Atlas of litter policies and programs for the Gulf region, and a number of other technical assistance documents.
3. Continuing to distribute a newsletter and monthly news round up to a mailing list of over 2,000 people.
4. Hosted 13 technical webinars (series ongoing on a quarterly basis).
5. Initiated and led a number of place-based projects.

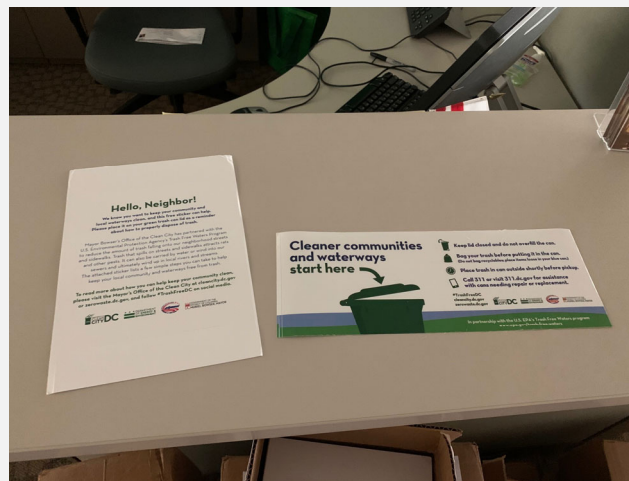
OUTREACH ACTIVITIES

- **Regular Communications:**
 - The Flow – our newsletter, which shares information on TFW projects and relevant news stories.
 - The Rapids – a monthly email with information about TFW-related events, funding opportunities, news & announcements, as well as a summary of the latest research on microplastics.
- **TFW Article Series:** An ongoing series of educational articles to teach the public about various dimensions of the aquatic trash problem and what they can do to help.
- **TFW Webinar Series:** Quarterly webinars, in which experts around the country speak about specific topics of interest and a focus on what stakeholders themselves can potentially do.



OUTREACH ACTIVITIES

- **Curbside Disposal Pilot Project:** TFW is working with the Washington DC Mayor's Office of the Clean City and other DC partners to urge residents to take steps to ensure that trash does not spill from their bins on collection day.
- **Transportation Hub Project:** TFW will be creating a toolbox on its website of the best messaging campaigns put out by State Departments of Transportation and Municipal Transit Authorities on mitigating trash pollution from and on roads and transportation hubs.
- **Project Highlights:** The TFW website contains a growing list of project descriptions and accomplishments.



TRASH COMPENDIUM

- TFW has compiled select excerpted permit language from stormwater permits, best management practice effectiveness information, and case studies into a Trash Stormwater Permit Compendium document that was just published on April 13.
- The Compendium is a very helpful resource for stormwater permit writers, municipal stormwater planners, and other audiences.



ESCAPED TRASH ASSESSMENT PROTOCOL (ETAP)

- The ETAP tool was designed to help communities characterize and quantify trash pollution and identify tailored management practices to mitigate trash loadings into waterways.
- ETAP should be published before the end of April.
- ETAP has been incorporated into the California Trash Monitoring Methods and Assessments Playbook.
- Future plans include creation of an app version of ETAP.

STORMWATER-SOLID WASTE DIALOGUES

- Stakeholders in the municipal solid waste and stormwater sectors are participating in a series of discussions in order to identify challenges and opportunities related to addressing aquatic trash through solid waste and stormwater management.
- Through a remote stakeholder engagement process, participants are transferring knowledge and identifying product needs.
- Partners include American Chemistry Council, the National Municipal Stormwater Alliance, and KCI Technologies.

MICROPLASTICS RESEARCH

- TFW is coordinating with EPA's microplastics researchers to amplify EPA's work in this area, and to develop projects to further the understanding of microplastics pollution and its impacts.
- The program is currently developing a progress report on based on the 2017 Microplastics Expert Workshop.
- Our Office of Research and Development is working on developing, validating and standardizing extraction, identification and quantification methods for microplastics in sediment and surface waters.

REPORT ON MICROFIBER POLLUTION

- In coordination with the IMDCC, EPA TFW is developing a Report to Congress on microfiber pollution, which is a requirement under Section 132 of the Save Our Seas 2.0 Act.
- In addition to an assessment of the existing knowledge about the microfiber pollution problem, the report will include a 5-year plan for how Federal agencies can work to reduce microfiber pollution.



FORTHCOMING PROJECTS

Tire Particles

- Various studies have shown that tire particles are very common in waterways and may have significant impacts on aquatic life.
- TFW is in the early stage of scoping a project to help address this issue.

Environmental Justice

- Environmental justice is a big focus area for the new Administration.
- Lower income and minority communities are often disproportionately impacted by trash issues.
- TFW is looking at both increasing focus in these areas, but also at how we can use environmental justice as a lens on the various efforts we undertake.

NEW TFW LEGISLATIVE DRIVER

Save Our Seas 2.0 Implementation

- Stand up a new Trash Free Waters national grant program.
 - Legislation says that EPA may create a new national TFW grants program.
 - Authorization is for \$10 million/year from FY21-25.
 - No appropriation for this grant program in FY21.
 - Grants will be support source reduction projects, enforce local materials management ordinances, implement solid waste state or local policies, install trash capture devices, provide education and outreach, and monitor or model reductions in waste flows due to BMPs for the reduction of plastic waste and other post-consumer materials in sources of drinking water.
- Lead office for EPA public strategy on post-consumer materials management and water management.
 - Strategy is to be completed “in consultation with stakeholders.”
 - Strategy is to be distributed to states and made publicly available for use by for-profit entities and NGOs
 - Strategy due by December 2021.



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Participation Certificate

- If you would like to obtain a participation certificate you can access the PDF in the **Handouts** section of your control panel.

Watershed Academy Webcasts

More webcasts coming soon!

The slides from today's presentations are posted on the Watershed Academy webpage.

A recording of the webcast will be posted within the next month.

www.epa.gov/watershedacademy

Thank You!